




## Freeform Search

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<b>Database:</b>	US Pre-Grant Publication Full-Text Database
	US Patents Full-Text Database
	US OCR Full-Text Database
	EPO Abstracts Database
	JPO Abstracts Database
	Derwent World Patents Index
	IBM Technical Disclosure Bulletins

<b>Term:</b>	<input type="text"/>	  
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<b>Display:</b>	<input type="text" value="10"/>	<b>Documents in Display Format:</b>	<input type="text" value="-"/>	<b>Starting with Number</b>	<input type="text" value="1"/>
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**Generate:** ☐ Hit List ☒ Hit Count ☐ Side by Side ☐ Image

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### Search History

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**DATE:** Saturday, December 18, 2004    [Printable Copy](#)    [Create Case](#)

<u>Set</u> <u>Name</u>	<u>Query</u>	<u>Hit</u> <u>Count</u>	<u>Set</u> <u>Name</u> result set
side by side			
	<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>		
<u>L65</u>	L64 and ("reverse star" or snowflake) near schema	38	<u>L65</u>
<u>L64</u>	L62 and (populat\$ near datamart or populat\$ and data near2 mart or data near warehouse or data with warehouse or "data warehouse")	528	<u>L64</u>
<u>L63</u>	L62 and (populat\$ near datamart or populat\$ and data near2 mart)	55	<u>L63</u>
<u>L62</u>	L61 and (metadata or meta with data)	4648	<u>L62</u>
<u>L61</u>	business and (data with base or database or data near2 base)	70991	<u>L61</u>
<u>L60</u>	717.clas.	7581	<u>L60</u>
<u>L59</u>	717/105	201	<u>L59</u>
<u>L58</u>	717/104	360	<u>L58</u>
<u>L57</u>	717/102	103	<u>L57</u>
<u>L56</u>	717/5	839	<u>L56</u>
<u>L55</u>	706/52	693	<u>L55</u>
<u>L54</u>	706.clas.	6303	<u>L54</u>
<u>L53</u>	705/44	946	<u>L53</u>
<u>L52</u>	705/39	1748	<u>L52</u>

<u>L51</u>	705/35	2246	<u>L51</u>
<u>L50</u>	705/30	1159	<u>L50</u>
<u>L49</u>	705/28	1772	<u>L49</u>
<u>L48</u>	705/26	5223	<u>L48</u>
<u>L47</u>	705/16	1112	<u>L47</u>
<u>L46</u>	705/14	3962	<u>L46</u>
<u>L45</u>	705/7	2219	<u>L45</u>
<u>L44</u>	705/5	888	<u>L44</u>
<u>L43</u>	705/1	5453	<u>L43</u>
<u>L42</u>	705.clas.	30759	<u>L42</u>
<u>L41</u>	707.clas.	24011	<u>L41</u>
<u>L40</u>	707/206	1043	<u>L40</u>
<u>L39</u>	707/201	2488	<u>L39</u>
<u>L38</u>	707/200	3668	<u>L38</u>
<u>L37</u>	707/104.1	4976	<u>L37</u>
<u>L36</u>	707/101	3681	<u>L36</u>
<u>L35</u>	707/100	5531	<u>L35</u>
<u>L34</u>	707/10	9618	<u>L34</u>
<u>L33</u>	707/1	7261	<u>L33</u>
<i>DB=USPT; PLUR=YES; OP=OR</i>			
<u>L32</u>	5668987.pn.	1	<u>L32</u>
<u>L31</u>	5761657.pn.	1	<u>L31</u>
<u>L30</u>	5761657.pn.	1	<u>L30</u>
<u>L29</u>	5511186.pn.	1	<u>L29</u>
<u>L28</u>	5511186.pn.	1	<u>L28</u>
<u>L27</u>	5555409.pn.	1	<u>L27</u>
<u>L26</u>	5555409.pn.	1	<u>L26</u>
<u>L25</u>	5675785.pn.	1	<u>L25</u>
<u>L24</u>	5675785.pn.	1	<u>L24</u>
<u>L23</u>	6581062.pn.	1	<u>L23</u>
<u>L22</u>	5873096.pn.	1	<u>L22</u>
<del>L21</del>	5893075.pn.	1	<u>L21</u>
<u>L20</u>	5893075.pn.	1	<u>L20</u>
<u>L19</u>	6151601.pn.	1	<u>L19</u>
<u>L18</u>	6151601.pn.	1	<u>L18</u>
<u>L17</u>	6167405.pn.	1	<u>L17</u>
<u>L16</u>	5708828.pn.	1	<u>L16</u>
<u>L15</u>	5708828.pn.	1	<u>L15</u>
<u>L14</u>	5870746.pn.	1	<u>L14</u>
<u>L13</u>	5644740.pn.	1	<u>L13</u>
<u>L12</u>	5644740.pn.	1	<u>L12</u>

<u>L11</u>	5870746.pn.	1	<u>L11</u>
<u>L10</u>	5870746.pn.	1	<u>L10</u>
<u>L9</u>	5666528.pn.	1	<u>L9</u>
<u>L8</u>	5742738.pn.	1	<u>L8</u>
<u>L7</u>	5918232.pn.	1	<u>L7</u>
<u>L6</u>	5918232.pn.	1	<u>L6</u>
<u>L5</u>	6167405.pn.	1	<u>L5</u>
<u>L4</u>	6167405.pn.	1	<u>L4</u>
<i>DB=PGPB,USPT,USOC,EPAB,JPAB,DWPI,TDBD; PLUR=YES; OP=OR</i>			
<u>L3</u>	L2 and data near model	42	<u>L3</u>
<u>L2</u>	L1 and definit\$	55	<u>L2</u>
<u>L1</u>	(reverse near star near schema or snowflake near schema)	61	<u>L1</u>

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L4: Entry 1 of 1

File: USPT

Dec 26, 2000

US-PAT-NO: [6167405](#)

DOCUMENT-IDENTIFIER: US 6167405 A

TITLE: Method and apparatus for automatically populating a data warehouse system

DATE-ISSUED: December 26, 2000

## INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
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APPL-NO: 09/ 067101   [\[PALM\]](#)

DATE FILED: April 27, 1998

INT-CL: [07] [G06](#) [F](#) [17/30](#)

US-CL-ISSUED: 707/102

US-CL-CURRENT: [707/102](#)

FIELD-OF-SEARCH: 707/6, 707/101, 707/102, 395/785

PRIOR-ART-DISCLOSED:

## U.S. PATENT DOCUMENTS

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	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
<input type="checkbox"/>	<a href="#">5708828</a>	January 1998	Coleman	395/785
<input type="checkbox"/>	<a href="#">5870746</a>	February 1999	Knutson	707/101
<input type="checkbox"/>	<a href="#">5918232</a>	June 1999	Pouschine et al.	707/103

## OTHER PUBLICATIONS

"Data Warehousing An Introduction", by Grayce Booth, Groupe Bull Technical Update, Man/Jun. 1995, pp. 1-9, Copyright Jun. 1995.

"The Distributed Data Warehouse Solution", by Kirk Mosher and Ken Rosensteel, Groupe Bull Technical Update, May/Jun. 1995, pp. 11-18 Copyright Jun. 1995.  
"Bull Warehouse Initiative", by Wayne W. Eckerson, Oct. 1996, Patricia Seybold Group, pp. 1-28, Copyright 1996.

ART-UNIT: 271

PRIMARY-EXAMINER: Amsbury; Wayne

ATTY-AGENT-FIRM: Driscoll; Faith F. Solakian; John S.

ABSTRACT:

A method and system for facilitating the creation of warehouse requests in a data warehouse system. During the design of the data warehouse tables, a repository tool is used for storing a number of new objects such as source and target databases, source and target tables and warehouse requests that are graphically defined and linked together by an administrator with the repository tool. The resulting visual design is so drawn so as to serve as input for each warehouse request to be generated. The administrator invokes a data replication component that operatively couples to the repository tool signaling that the warehouse request is to be implemented. The data replication component automatically creates the different subcomponents of the request by accessing various links stored by the repository tool and displays a visual representation of the subcomponents and their relationships to each other to the administrator. Thereafter, the replication component provides access to menu screens for enabling the administrator to visualize each of the subcomponents of the request and their properties for enabling modifications to be made to such subcomponents for completing configuration of all request subcomponents. Subsequently, the warehouse request can be scheduled to execute and populate the warehouse tables.

35 Claims, 13 Drawing figures

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File: USPT

Dec 8, 1998

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DOCUMENT-IDENTIFIER: US 5848408 A

TITLE: Method for executing star queries

Detailed Description Text (27):STAR QUERY TRANSFORMATION WITH SNOWFLAKE SCHEMASDetailed Description Text (28):

A snowflake schema is a star schema in which the dimension tables themselves have dimension tables. For example, the store table 102 in FIG. 1 is a dimension table for the sales table 106. One of the columns of the store table 102 is "manager". The "manager" column of store table 102 may contain values from a primary key "manager" column of a "manager" table (not shown). The manager table could include additional information about each manager, such as the home address, social security number, and phone number of each manager.

Detailed Description Text (29):

In the present example, the store table 102 may be considered a first level dimension table, since it stores further information about a dimension of the fact table, while the manager table may be considered a second level dimension table because it stores further information about a dimension of a first level fact table. There may be any number of levels of dimension tables in a snowflake schema. Further, an N level dimension table may itself have any number of N+1 level dimension tables.

Detailed Description Text (30):

Star queries associated with snowflake schemas are similar to star queries for conventional star schemas except that star queries for snowflake schemas may include (1) constraints for columns of second or higher level dimension tables, and (2) join predicates that establish a correlation between a foreign key columns of lower level dimension tables and primary key columns of higher level dimension tables.

Detailed Description Text (32):

According to an embodiment of the invention, the star queries for snowflake schemas are transformed in the same manner as star queries for conventional star schemas in that subqueries are generated based on constraints specified for dimension tables. For example, the constraint "dim2.c7>100" would result in the generation of the subquery:

Detailed Description Text (34):

However, with snowflake schemas, a subquery generated based on a constraint specified for a higher level dimension table must include join predicates to connect the constrained dimension table back to a first level dimension table. In the exemplary query given above, the constraint "dim12.c4=20" on dim12 is a constraint on a second level dimension table. The join predicate that connects dim12 to a first level dimension table is "dim1.key12=dim12.key". Therefore, the subquery generated for the constraint "dim12.c4=20" must contain the join predicate "dim1.key12=dim12.key". Thus, the following subquery may be generated based on the

"dim12.c4=20" constraint:

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